

## REMARKS

This is in response to the outstanding Office Action dated September 26, 2008. The claims now pending in the application are claims 1-39. Claims 1-14 and 19-22 have been previously withdrawn. Applicants have amended claims 15-18, 23-25, 27, 29, 31-32 and 38-39. Applicants respectfully request withdrawal of the outstanding rejections and allowance of the claims.

Response to Rejection under 35 U.S.C. §112, First paragraph

In the outstanding Office Action, claims 15-18 and 23-39 stand rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Specifically, the Examiner asserts it is not clear what is meant by "upper surface portion" and it is not clear the limitation is supported by Figure 3. Claims 15-18 and 23-39 have been amended to delete the reference to an upper surface portion.

With respect to claim 39, the Examiner asserts there is no support for the limitation wherein the "first portion contains substantially no anti-microorganism granules". This rejection is respectfully traversed. Support for the limitation can be found in Applicants' Specification in paragraph [0026] on page 9.

Additionally with respect to claim 39, the Examiner asserts there is no support for the limitation that "substantially few of the first portion of granules extend in a downward direction beyond the upper surface portion of the upper asphalt coated portion". Claim 39 has been amended to obviate the rejection.

Response to Objection of New Matter in Specification

In the outstanding Office Action, the amendment filed 6/23/08 is objected to under 35 U.S.C. §132(a), for the introduction of new matter into the disclosure of the invention. Specifically, the Examiner asserts there is no support for any of the disclosure relating to the "upper asphalt coated portion" and/or "lower asphalt coated portion". Applicants have amended paragraphs [0040], [0041], [0042] and [0043] to delete the objected to references.

Additionally, Applicants have amended these paragraphs to add a reference to "an upper surface" of the asphalt coated sheet. Support for the added reference can be found in paragraph [0018] of Applicants' Specification on page 6.

Response to Rejection of Independent Claims 15, 16, 23 and 39 under 35 U.S.C. §103(a)

In the outstanding Office Action, independent claims 15, 16, 23 and 39 were rejected under 35 U.S.C. §103(a) as being unpatentable over Ingram (U.S. 3,084,059) in view of Kiik et al. (U.S. 6,585,813).

Independent claims 15, 16, 23 and 39 have been amended to include the limitations wherein the first and second portions of granules are positioned above the substrate of the asphalt coated sheet.

The Examiner asserts the combination of the Ingram and the Kiik et al. references teach all of the limitations of Applicants' amended claims 15, 16, 23 and 39. However, the Ingram and Kiik et al. references, taken singularly or in combination, do not disclose or mention the structure of the roofing shingle as claimed in Applicants' amended independent claims 15, 16, 23 and 39. Rather, the combination of the Ingram and Kiik et al. references provides the roofing material of Ingram, consisting of a mixture of rock particles of varying sizes evenly distributed in layers throughout the asphalt matrix with the anti-microbial particles of the Kiik et al. reference. It would be apparent to one of ordinary skill in the art at the time the invention was made that coating a shingle substrate with the roofing material mixture disclosed in the Ingram reference would result in a shingle having rock particles both above and below the shingle substrate. There is simply no reference in either the Ingram or the Kiik et al. references of a roofing shingle having the first and second portions of granules positioned above the substrate of the asphalt coated sheet as claimed in Applicants' amended independent claims 15, 16, 23 and 39.

It is well established that all claim limitations must be considered in judging the patentability of a claim against the prior art. As set forth in the MPEP, at least at §2143.03, in order to establish prima facie obviousness of a

claimed invention, all of the claimed limitations must be considered against the prior art, citing *In Re Wilson*, 424 F.2d 1382, 165 USPQ 494 (CCPA 1970). In this regard, Applicants' amended independent claims 15, 16, 23 and 39 are non-obvious under 35 U.S.C. §103(a) in view of the Ingram and Kiik et al. references. Therefore the rejections of amended independent claims 15, 16, 23 and 39 are no longer applicable and the claims are patentable as amended.

Dependent claims 24-30 depend on amended claim 15 and for at least this reason, are also patentable.

Dependent claims 17-18 and 31-37 depend on amended claim 16 and for at least this reason, are also patentable.

#### Response to Rejection of Independent Claim 38 under 35 U.S.C. §103(a)

In the outstanding Office Action, independent claim 38 was rejected under 35 U.S.C. §103(a) as being unpatentable over Ingram (U.S. 3,084,059) in view of Kiik et al. (U.S. 6,585,813).

Independent claim 38 has been amended to include the limitation wherein the first portion of prime granules are deposited onto the upper surface of the asphalt coated sheet.

The Examiner asserts the combination of the Ingram and the Kiik et al. references teach all of the limitations of Applicants' amended claim 38. However, the Ingram and Kiik et al. references, taken singularly or in combination, do not disclose or mention the structure of the roofing shingle as claimed in Applicants' amended independent claim 38. Specifically, the Ingram and Kiik et al. references fail to disclose a first portion of prime granules deposited onto the upper surface of the asphalt coated sheet. Rather, the combination of the Ingram and Kiik et al. references provides the roofing material of Ingram, consisting of a mixture of rock particles of varying sizes evenly distributed in layers throughout the asphalt matrix with the anti-microbial particles of the Kiik et al. reference. There is simply no reference in either the Ingram or the Kiik et al. references of a roofing shingle having a first portion of prime granules deposited onto an upper surface of the asphalt coated sheet as claimed in Applicants' amended independent claim 38. In this regard, Applicants' amended independent claim 38 is non-obvious under 35 U.S.C. §103(a) in view of the Ingram and Kiik

et al. references. Therefore the rejection of amended independent claim 38 is no longer applicable and the claim is patentable as amended.

Declaration of Mr. Lawrence J. Grubka

In the event the Examiner does not find the arguments presented above sufficiently persuasive to show that the present claims are patentable, Applicants are supplying a Declaration with additional evidence as to patentability. The Declaration, executed by Mr. Lawrence J. Grubka, states that the level of ordinary skill in the field of shingle design would be that of a product or process engineer with at least a Bachelor's degree in engineering or science, and with at least five years of shingle process or product design experience. Mr. Grubka, a Senior Engineer employed by Owens Corning, has worked in various research and development capacities for the last 31 years. Larry spent approximately 8 years away from Owens Corning. Most relevantly, he has experience as a project leader or lead researcher for projects involving algae and microorganism resistant shingles.

Mr. Grubka further states the filler roofing material disclosed in the U.S. Patent No. 3,084,059 to Ingram is structurally different from the first portion of granules deposited on the asphalt coated sheet as claimed in Applicants' amended independent claims 15, 16, 23, 38 and 39. The reasons for the structural difference include:

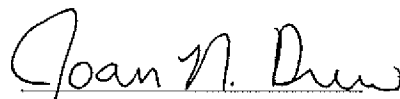
1. The filler roofing material of Ingram is generally evenly distributed throughout various layers formed in the asphalt matrix whereas in the current application, the first portion of granules is deposited on the upper surface of the asphalt coated sheet, and the first portion of granules is positioned above the shingle substrate.
2. The roofing material of Ingram consists of a mixture of rock particles and/or waste or by-product materials such as ceramic scrap, tile scrap and furnace slag. In contrast, the first portion of granules deposited on the asphalt coated sheet consists of prime granules, well known by those skilled in the art to be relatively expensive and applied to the shingle in

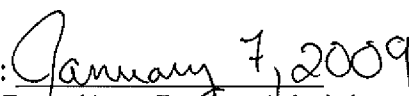
regions which will ultimately be visible when the shingles are installed upon a roof.

3. The purpose of the roofing material disclosed in Ingram is to displace a voluminous quantity of asphalt thereby extending the use of the asphalt and lowering the cost of the shingles. In contrast, the purpose of the first portion of shingle granules deposited on the asphalt coated sheet is to protect the asphalt from harmful ultraviolet light while at the same time presenting an aesthetically pleasing appearance.
4. The roofing material of Ingram is intended to be relatively inexpensive thereby facilitating the use of materials such as ceramic scrap, tile scrap and furnace slag. Alternatively, since the granules in Applicants' claims are prime granules rather than the filler used in Ingram, the granules in the first portion of shingle granules deposited on the asphalt coated sheet have requirements as to size consistency and coloring. These requirements result in granules that are relatively expensive compared to filler roofing material. Given the cost differences, no one skilled in the art would ever use the first portion of granules as filler roofing material.
5. The combination of the Ingram and Kiik references fails to provide a first portion of granules applied to the upper surface of the asphalt coated sheet in such a manner that the first portion of granules is positioned above the shingle substrate. The combination of the Ingram and Kiik references also fails to provide a second portion of granules, comprising a mixture of granules and microorganism resistant granules, applied over the first portion of granules. In addition, the combination of the Ingram and Kiik references fails to provide a two step process including a first step of applying a first portion of granules to the asphalt coated sheet in such a manner that the first portion of granules is positioned above the shingle mat, and a second step of applying a second portion of granules, comprising a mixture of granules and microorganism resistant granules, applied over the first portion of granules.

In view of the above remarks, Applicants have shown that the amended claims are in proper form for allowance, and the invention, as defined in the amended claims, is not taught nor disclosed by the applied references. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejections of record, and allowance of all claims.

Respectfully submitted,

  
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